Reply to Office action of Dec. 27, 2006

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Amendments to the Specification:

Kindly amend the disclosure as follows:

Please replace paragraph [0034] with the following amended paragraph:

[0034] FIG. 16a 17 is an example of a Greymont digital temperature sensor used to measure the ambient temperature during winter operation.

Please replace paragraph [0035] with the following amended paragraph:

[0035] FIG. 47 18 is an example of the Real Time Program showing actual readings from the data logger being recorded and converted to tonnes/hour and total tonnage. Also included in this program is a No-Load test to re-check the No-Load setting for the conveyor or bucket elevator. A No-Load test was just run on channel 1 as indicated by the red lines. Note this screen shot is similar on a standard computer screen or on a Touch Screen Industrial PC.

Please delete paragraph [0036] as follows:

[0036] FIG. 18 is an example of the AUTOMAT program screen shot that shows actual readings from the watt transducers at 1-second intervals converted to tonnes/hour and totalized for the day and year for 2 conveyors being monitored. All information can also be displayed graphically.

Please replace paragraph [0054] with the following amended paragraph:

[0054] Under cold weather conditions, ie below 0.degree. C., the use of an ambient temperature sensor such as a GREYSTONE TE500 outside temperature sensor FIG. 16a 17, item 16 can be used to record temperature to adjust kilowatt conversion to tonnage as shown in FIG. 16. The 4-20 ma output from this sensor can be relayed to the data logger 7 or PLC 14. Under cold weather conditions if slippage of the conveyor is a possibility then the use of a speed sensor such as a SIEMENS MILLTRONICS Return Belt Speed Sensor (RBSS), Item 17 can be used to measure the change in speed of the conveyor by the change in pulse output from this sensor. This pulse signal from belt speed sensor 17, can be sent to the PLC 14 for recording and by integration the change in speed can be used to adjust the converted tonnage.

Please replace paragraph [0060] with the following amended paragraph:

[0060] The whole system has also been set up with all outputs from transducers fed directly to a PLC at 1 second intervals with all readings being processed directly on the Automat showing kilowatt readings and converted tonnage per hour rates and totalized tonnage as seen in FIG. 18.

Please replace paragraph [0098] with the following amended paragraph:

[0098] FIGS. 18, illustrates a A versions on how to use this new technology to present data in a quarry using an existing Automat program is as follows. This is accomplished by simply adding the results of the application of the present invention to the Automat program using the OPC server program which is normally included with most Automat programs. This method makes the installation very quick. By using the Automat program it becomes easy to use all the graphing and report features that are included in the Automat program. As seen in FIG. 18 the The user gets to see the tonnes per hour of material moving over the conveyor, the total tonnes for the day accumulated and the total tonnes since the beginning of the year. In addition to the reviewed data all data is also presented graphically. All of this information comes from the kwatt readings taken every second which are then checked that they are above the No-load reading, then converted to tonnage by the calibration formula. The number is divided by 3600 to get a tph reading and totalized. The time is also stored so each reading above No-load is stored as production time and all readings at No-load or lower are stored as No-Load time or non production time.

Please replace paragraph [0102] with the following amended paragraph:

[0102] FIG. 47 18 illustrates yet another embodiment which uses the ACR data logger as the source readings every 4 seconds. In this embodiment, the main figures such as tph and total tonnes moved as well as production time, No-load time and No-load original reading and the current reading being used since the last Zero test are all shown live. This embodiment also has the zero-test feature which is activated by the operator by simply touching the zero test key. The red numbering indicates the test has been activated and is terminated by simply touching the Zero test key once again. The new No-Load figure is displayed and is used in the calibration formula to do the conversion to tonnage. In yet another embodiment, the No-load test reading is applied not only for future readings but also retroactively to all readings taken since the start of the day. This allows the flexibility to do a Zero test latter in the day and have a choice to apply this figure to future readings or to all readings for the day. The actual computer display can be a standard screen or a Touch Screen Industrial PC such as an Advantech 12.1 inch TPC-1260TEX Touch screen or a BSI 12.1 inch RMS-1120 Touch screen.